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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,062

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Shingo Nishioka

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EXAMINER

LEWIS, ALICIA M

ART UNIT

PAPER NUMBER

2164

MAIL DATE

DELIVERY MODE

09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/790,062

Applicant(s)

NISHIOKA ET AL.

Examiner

Alicia M. Lewis

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2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____


SAM RIMELL
PRIMARY EXAMINER

DETAILED ACTION

This office action is responsive to the Request for Continued Examination (RCE) filed June 25, 2007. Claims 1-10 have been canceled, and claims 11-13 have been added. Therefore, claims 11-13 are pending in this application.

Claim Objections

1. Claim 11 is objected to because of the following informalities: the term "for each of words" in line 13 should be "for each word," and the term "another words" in line 16 should be "another word". Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 11-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 11, the limitation of "calculating similarity for each of words...with a document having been stored in the database" (lines 13-15 of the claim) is ambiguous. More specifically, the lines "in case that a word of the plurality of words satisfies the restricting condition with a document having been stored in the database" are unclear. For the purpose of examination, examiner has interpreted the limitation to

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mean calculating any similarity score for the words in the word list. Appropriate correction is required.

5. Regarding claims 12 and 13, the limitation "based on both a relationship between...and the word for which the similarity has been calculated" is unclear. It is unclear as to how the judging is based on the relationship and the word.

6. Further, it is unclear as to the order in which the steps of the last limitation in claims 12 and 13 (everything after the word "judging") occur. Examiner suggests using more punctuation to make the method clearer.

7. Claim 12 recites the limitation "the word " in lines 19-20 of the claim. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 13 recites the limitation "the word" in lines 15-16 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

10. Claims 12-13 are directed to an information searching method. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a useful, concrete and tangible result.

Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for judging whether or not a restricting condition is satisfied. This produced result remains in the abstract and, thus fails to achieve the required status of having real world value.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by Simske et al. (US Patent Application Publication 2004/0064447 A1) ('Simske').

With respect to claim 1, Simske teaches:

inputting a search inquiry character train into a first block (paragraph 38);

forming a summary word list including a plurality of words to be searched based on both the search inquiry character train inputted through the inputting step and data

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having been stored in advance in a database provided within a second block (Figure 3B, paragraph 40);

further inputting a restricting condition for narrowing down search targets for the plurality of words to be searched, the restricting condition being selected from a group consisting including an existence of an indispensable word, and an existence of a taboo word (paragraphs 40, 59, 81 and 89);

judging whether or not each of the plurality of words satisfies the restricting condition (paragraphs 40, 72, 81 and 89-95);

calculating similarity for each of words of the plurality of words in case that a word of the plurality of words satisfies the restricting condition with a document having been stored in the database, while further judging whether or not another words of the plurality of words satisfies the restricting condition in case that a word of the plurality of words breaches the restricting condition (Figure 6, paragraphs 98 and 119);

searching the database for the words of the plurality of words satisfying the restricting condition with similarity which has been calculated (step 702 in Figure 7, paragraph 118); and

outputting search results of the searching step (step 712 in Figure 7, paragraph 135).

Simske teaches that a user may input a query, and in response to the user's input, a synonymic search query may be generated. He teaches that the synonymic search query may comprise the input query and at least one synonymic query, and that Boolean operands may be used to construct such a query (paragraph 40). The

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synonymic search query represents a summary word list, as it includes words based on the search inquiry (input query) and data from a database (synonymic query).

Simske teaches that Boolean expressions may be used to construct queries; more specifically he discloses that AND operators may be used (paragraph 72). Therefore, all words joined by the AND operator are considered indispensable words because they must all be present in search results. He further teaches that synonyms are not found for proper names, meaning that actual proper name (indispensable word) must appear in the synonymic search query (word list). For example, in paragraphs 89-95, the indispensable word is "Stanford".

In the case where words joined by the AND operator represent the restricting condition, all words satisfy the restricting condition. In the case where the proper names represent the restricting condition, all queries generated include the proper name, thus all words also satisfy the restricting condition in that case.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simske et al. (US Patent Application Publication 2004/0064447 A1) ('Simske') in view of Harrison et al (US 2003/0069880 A1) ('Harrison').

With respect to claim 12, Simske teaches:

inputting a search inquiry character train into a first block (paragraph 38);

forming a summary word list including a plurality of words to be searched based on both the search inquiry character train inputted through the inputting step and data having been stored in advance in a database provided within a second block (Figure 3B, paragraph 40);

further inputting a restricting condition for narrowing down search targets for the plurality of words to be searched, the restricting condition being selected from a group consisting including an existence of an indispensable word, and an existence of a taboo word (paragraphs 40, 59, 81 and 89);

calculating similarity for words of the plurality of words with a document having been stored in the database (paragraph 119);

searching the database for the words of the plurality of words with similarity calculated holding a number of documents selected by the searching step into a holding block provided within the second block (Figure 7, paragraph 118); and

judging whether or not a restricting condition has been satisfied (paragraphs 40, 72, 81 and 89-95).

Based on Figure 7, it is inherent that a number of documents are held before being presented to the user.

Simske does not teach comparing the number of documents with a predetermined required number of documents; wherein the judging is based on both a

relationship between the number of documents and the predetermined required number of documents, and the word for which the similarity has been calculated; adding the documents for which the similarity has been calculated to the holding block in case that the number of documents in the holding means is less than the predetermined required number; or deleting the documents for which the similarity has been calculated from the holding block in case that the number of documents in the holding means is larger than the predetermined required number.

Harrison teaches natural language query processing (see abstract), in which he teaches:

comparing the number of documents with a predetermined required number of documents (page 12, claims 16 and 17);

wherein the judging is based on both a relationship between the number of documents and the predetermined required number of documents (page 12, claims 16 and 17), and the word for which the similarity has been calculated (paragraph 48);

adding the documents for which the similarity has been calculated to the holding block in case that the number of documents in the holding means is less than the predetermined required number (page 12, claims 16 and 17); and

deleting the documents for which the similarity has been calculated from the holding block in case that the number of documents in the holding means is larger than the predetermined required number (page 12, claims 1, 16 and 17).

Harrison teaches in claim 1 that a portion of the received results are returned, thus the other results are not returned, and thus may be considered deleted.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Simske by the teaching of Harrison because the combination would enable improved natural language search functionality (Harrison, paragraph 10).

With respect to claim 13, Simske as modified teaches:

inputting a search inquiry character train into a first block (Simske, paragraph 38);

forming a summary word list including a plurality of words to be searched based on both the search inquiry character train inputted through the inputting step and data having been stored in advance in a database provided within a second block (Simske, Figure 3B, paragraph 40);

calculating similarity for words of the plurality of words with a document having been stored in the database (Simske, paragraph 119);

searching the database for the words of the plurality of words with similarity calculated holding a number of documents selected by the searching step into a holding block provided within the second block (Simske, Figure 7, paragraph 118);

comparing the number of documents with a predetermined required number of documents (Harrison, page 12, claims 16 and 17);

judging, based on both a relationship between the number of documents and the predetermined required number of documents (Harrison, page 12, claims 16 and 17), and the word for which the similarity has been calculated (Harrison, paragraph 48),

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whether or not a restricting condition having been defined in advance is satisfied (Simske, paragraphs 40, 72, 81 and 89-95) after adding the documents for which the similarity has been calculated to the holding block in case that the number of documents in the holding means is less than the predetermined required number (Harrison, page 12, claims 16 and 17), or judging whether or not a restricting condition is satisfied after deleting the documents for which the similarity has been calculated from the holding block in case that the number of documents in the holding means is larger than the predetermined required number (Harrison, page 12, claims 1, 16 and 17), the restricting condition being selected from a group consisting including an existence of an indispensable word, and an existence of a taboo word (Simske, paragraphs 40, 59, 81 and 89).

Response to Arguments

15. Applicant's arguments with respect to claims 11-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Lewis whose telephone number is 571-272-5599. The examiner can normally be reached on Monday - Friday, 9 - 6:30, alternate Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on 571-272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alicia Lewis
September 3, 2007


SAM RIMELL
PRIMARY EXAMINER